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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/998,019	11/30/2001	Gary L. Gilbert	2070.007200/P7101	6794

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EXAMINER

BONURA, TIMOTHY M

ART UNIT	PAPER NUMBER
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2114

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/998,019

Applicant(s)

GILBERT ET AL.

Examiner

Tim Bonura

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(e). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-47 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-27, 29-31, 35-38, 40-42 and 47 is/are rejected.
- 7) ☒ Claim(s) 17, 28, 32-34, 39 and 43-45 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 November 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

- **Claims 1, 4-10, 13-16, 18-27, 29-31, 35-38, 40-42, and 46-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Forsman, et al, U.S. Patent Number 6,742,139.**
- **Claims 2-3, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsman and further in view of Dziadosz, et al, U.S. Patent Number 5,832,222.**

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 4-10, 13-16, 18-31, 35-38, 40-42, and 46-47 are rejected under 35 U.S.C. 102(e) as being anticipated by Forsman, et al, U.S. Patent Number 6,742,139.

3. Regarding claim 1:

- a. Regarding the limitation of “a processor,” Forsman discloses a system a data processing system with processors. (See Figure 1 item 101, Lines 12-13 of Column 2).
- b. Regarding the limitation of “a memory,” Forsman discloses a system a data processing system with memory. (See Figure 1 item 160, Lines 19-20 of Column 2).
- c. Regarding the limitation of “a plurality of input/output controllers each configurable with a connections to another system controller, wherein each of the plurality of I/O plurality of I/O each of one or more controllers is further configurable

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with an I/O connection to monitored devices,” Forsman discloses a system a PCI host bridge bus which connects the memory I/O controllers to the data processing system.

(Lines 25-33 of Column 2).

4. Regarding claim 4, Forsman discloses a data processing system wherein an I/O controller includes an I2C controller. [Examiner notes IIC, I2C, and I²C are all the used to designate Interlock Interface Control] (Lines 55-62 of Column 2).

5. Regarding claim 5, Forsman discloses a system with service processor software (Lines 57-60 of Column 5) that monitors I/O controllers for errors or faults. (Lines 19-28 of Column 3).

6. Regarding claim 6, Forsman discloses a system with a service processor that can update a control register based upon the status of components within the system. (Lines 63-67 of Column 5).

7. Regarding claim 7, Forsman discloses a system wherein the status information can be communicated to the host of the system. (Line 67 of Column 5 and Line 1 of Column 6).

8. Regarding claim 8, Forsman disclose a data processing system with bootable resources. (Lines 32-46 of Column 3).

9. Regarding claim 9, Forsman discloses a data processing system that can perform a system re-boot on a device that contains the operating system software. (Lines 10-18 of Column 4).

10. Regarding claim 10:

d. Regarding the limitation of “one or more sensors,” Forsman discloses a system with Forsman discloses a system with multiple items, which are monitored for errors or faults. (Lines 20-25 of Column 3).

- e. Regarding the limitation of “a processor,” Forsman discloses a system a data processing system with processors. (See Figure 1 item 101, Lines 12-13 of Column 2).
- f. Regarding the limitation of “a memory,” Forsman discloses a system a data processing system with memory. (See Figure 1 item 160, Lines 19-20 of Column 2).
- g. Regarding the limitation of “a plurality of input/output controllers each configurable with a plurality of I/O connections to another of the plurality of system controllers, wherein each of the plurality of I/O controllers is further configurable with an I/O connection to each of one or more sensors,” Forsman discloses a system a PCI host bridge bus which connects the memory I/O controllers to the data processing system. (Lines 25-33 of Column 2).
- h. Regarding the limitation of “wherein the plurality of system controllers includes a primary system controller and a secondary system controller,” Forsman discloses a system with a Host system process and a service processor. (Lines 17-20 of Column 3).
- i. Regarding the limitation of “one or more processors,” Forsman discloses a system a data processing system with processors. (See Figure 1 items 101-104, Lines 12-13 of Column 2).
- j. Regarding the limitation of “one or more memory,” Forsman discloses a system a data processing system with memory. (See Figure 1 item 160-163, Lines 19-20 of Column 2).
- k. Regarding the limitation of “one or more I/O devices,” Forsman discloses a system with multiple I/O devices. (Lines 26-27 of Column 2).

1. Regarding the limitation of “wherein the primary system controller is configured to configure the one or more processors, the one or more memories, and the one or more I/O devices into one or more domains, wherein the primary system controller is further configured to update secondary system controller with a system configuration”, Forsman discloses a system with host processors that are connected to memory and I/O devices (See Figure 1, items 101-104, 110, 114-163). Forsman also discloses that the host processors can re-initialize a service processor if a determination is made that the service processor is not functioning correctly. (Lines 38-50 of Column 3).
11. Regarding claim 13, Forsman discloses a data processing system wherein an I/O controller includes an I2C controller. [Examiner notes IIC, I2C, and I²C are all the used to designate Interlock Interface Control] (Lines 55-62 of Column 2).
12. Regarding claim 14, Forsman discloses a system with service processor software (Lines 57-60 of Column 5) that monitors I/O controllers for errors or faults. (Lines 19-28 of Column 3).
13. Regarding claim 15, Forsman discloses a system with a service processor that can update a control register based upon the status of components within the system. (Lines 63-67 of Column 5).
14. Regarding claim 16, Forsman discloses a system wherein the status information can be communicated to the host of the system. (Line 67 of Column 5 and Line 1 of Column 6).
15. Regarding claim 18, Forsman disclose a data processing system with bootable resources. (Lines 32-46 of Column 3).

16. Regarding claim 19, Forsman discloses a data processing system that can perform a system re-boot on a device that contains the operating system software. (Lines 10-18 of Column 4).

17. Regarding claim 20,

m. Regarding the limitation of “a plurality of sensors,” Forsman discloses a system with Forsman discloses a system with multiple items, which are monitored for errors or faults. (Lines 20-25 of Column 3).

n. Regarding the limitation of “a center plane,” Forsman discloses a data processing system with a main bus, which connects all parts of the system. (See Figure 1, item 134).

o. Regarding the limitation of “one or more processor boards coupled to the center plane,” Forsman discloses a system a data processing system with processors. (See Figure 1 items 101-104, Lines 12-13 of Column 2). The processors are connected to each other via a bus. (See Figure 1, item 134).

p. Regarding the limitation of “one or more I/O boards coupled to the center plane,” Forsman discloses a system a PCI host bridge bus that connects the memory I/O controllers to the data processing system. (Lines 25-33 of Column 2).

q. Regarding the limitation of “a plurality of system controllers each coupled to the center plane, the one or more processor boards, and the one or more I/O boards, wherein each of the plurality of system controllers includes a plurality of input/output (I/O) controllers each configurable with a plurality of I/O connections to another of the plurality of system controllers, wherein each of the plurality of I/O controllers is further configurable with an I/O connection to each of the plurality of sensors.,” Forsman

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discloses a system with host processors that are connected to memory and I/O devices (See Figure 1, items 101-104, 110, 114-163). Forsman also discloses that the host processors can re-initialize a service processor if a determination is made that the service processor is not functioning correctly. (Lines 38-50 of Column 3).

18. Regarding claim 21, Forsman discloses a system with multiple items, which are monitored for errors or faults. (Lines 20-25 of Column 3).

19. Regarding claim 22, Forsman discloses a system with Forsman discloses a system with multiple items, which are monitored for errors or faults. (Lines 20-25 of Column 3).

20. Regarding claim 23, Forsman discloses a system with Forsman discloses a system with multiple items, which are monitored for errors or faults. (Lines 20-25 of Column 3).

21. Regarding claim 24:

r. Regarding the limitation of “booting a plurality of system controllers configured as a primary system controller and at least one secondary system controller,” Forsman disclose a data processing system with bootable resources. (Lines 32-46 of Column 3).

s. Regarding the limitation of “booting one or more domains in the computer system from the primary system controller,” Forsman discloses a system with the ability to reset service processors. (Lines 38-40 of Column 3).

t. Regarding the limitation of “updating a system configuration on the primary system controller,” Forsman discloses a system with a service processor that can update a control register based upon the status of components within the system. (Lines 63-67 of Column 5).

- u. Regarding the limitation of “updating the system configuration on the secondary system controller from the primary system controller,” Forsman also discloses that the host processors can re-initialize a service processor if a determination is made that the service processor is not functioning correctly. (Lines 38-50 of Column 3).
22. Regarding claim 25, Forsman discloses that the host processors can monitor the service processors. (Line 38-40 of Column 3).
23. Regarding claim 26, Forsman discloses that service processors can monitor the data processing system. (Lines 26-28 of Column 3).
24. Regarding claim 27, Forsman discloses that service processors can monitor the data processing system. (Lines 26-28 of Column 3).
25. Regarding claim 29, Forsman discloses a system wherein a heartbeat signal is sent between the host processor and the service processor. (Lines 10-12 of Column 4).
26. Regarding claim 30, Forsman discloses a system wherein a heartbeat signal is sent from the host to the service processor and a time interval is waited until another signal is sent or a timeout occurs and the processor is reset. (Lines 16-22 of Column 5).
27. Regarding claim 31, Forsman discloses that the service processor can receive the heartbeat signal and respond. (Lines 28-34 of Column 5).
28. Regarding claim 35:
- v. Regarding the limitation of “booting a plurality of system controllers configured as a primary system controller and at least one secondary system controller,” Forsman disclose a data processing system with bootable resources. (Lines 32-46 of Column 3).

- w. Regarding the limitation of “booting one or more domains in the computer system from the primary system controller,” Forsman discloses a system with the ability to reset service processors. (Lines 38-40 of Column 3).
 - x. Regarding the limitation of “updating a system configuration on the primary system controller,” Forsman discloses a system with a service processor that can update a control register based upon the status of components within the system. (Lines 63-67 of Column 5).
 - y. Regarding the limitation of “updating the system configuration on the secondary system controller from the primary system controller,” Forsman also discloses that the host processors can re-initialize a service processor if a determination is made that the service processor is not functioning correctly. (Lines 38-50 of Column 3).
29. Regarding claim 36, Forsman discloses that the host processors can monitor the service processors. (Line 38-40 of Column 3).
30. Regarding claim 37, Forsman discloses that service processors can monitor the data processing system. (Lines 26-28 of Column 3).
31. Regarding claim 38, Forsman discloses that service processors can monitor the data processing system. (Lines 26-28 of Column 3).
32. Regarding claim 40, Forsman discloses a system wherein a heartbeat signal is sent between the host processor and the service processor. (Lines 10-12 of Column 4).
33. Regarding claim 41, Forsman discloses a system wherein a heartbeat signal is sent from the host to the service processor and a time interval is waited until another signal is sent or a timeout occurs and the processor is reset. (Lines 16-22 of Column 5).

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34. Regarding claim 42, Forsman discloses that the service processor can receive the heartbeat signal and respond. (Lines 28-34 of Column 5).

35. Regarding claim 46:

z. Regarding the limitation of “a plurality of system controllers configured as a primary system controller and at least one secondary system controller,” Forsman disclose a data processing system with bootable resources. (Lines 32-46 of Column 3).

aa. Regarding the limitation of “means for booting a plurality of system controllers,” Forsman disclose a data processing system with bootable resources. (Lines 32-46 of Column 3).

bb. Regarding the limitation of “step for booting one or more domains in the computer system,” Forsman discloses a system with the ability to reset service processors. (Lines 38-40 of Column 3).

cc. Regarding the limitation of “step for updating a system configuration on the primary system controller,” Forsman discloses a system with a service processor that can update a control register based upon the status of components within the system. (Lines 63-67 of Column 5).

dd. Regarding the limitation of “step for updating the system configuration on the secondary system controller,” Forsman also discloses that the host processors can re-initialize a service processor if a determination is made that the service processor is not functioning correctly. (Lines 38-50 of Column 3).

36. Regarding claim 47:

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ee. Regarding the limitation of “step for booting a plurality of system controllers configured as a primary system controller and at least one secondary system controller,” Forsman disclose a data processing system with bootable resources. (Lines 32-46 of Column 3).

ff. Regarding the limitation of “step for booting one or more domains in the computer system from the primary system controller,” Forsman discloses a system with the ability to reset service processors. (Lines 38-40 of Column 3).

gg. Regarding the limitation of “step for updating a system configuration on the primary system controller,” Forsman discloses a system with a service processor that can update a control register based upon the status of components within the system. (Lines 63-67 of Column 5).

hh. Regarding the limitation of “step for updating the system configuration on the secondary system controller from the primary system controller,” Forsman also discloses that the host processors can re-initialize a service processor if a determination is made that the service processor is not functioning correctly. (Lines 38-50 of Column 3).

Claim Rejections - 35 USC § 103

37. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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38. Claims 2-3, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Forsman as applied to claims 1 and 10 above, and further in view of Dziadosz, et al, U.S. Patent Number 5,832,222.

39. Regarding claim 2, Forsman discloses that the data processing system can have network adapter or modem support within the system. (Lines 38-42 of Column 2). Forsman does not disclose a system, which explicitly uses Ethernet. However, Dziadosz discloses a data processing I/O system that uses the Ethernet protocol as means of communication. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the I/O systems communications of Dziadosz and data processing system of Forsman. It is would have been obvious to one of ordinary skill to combine the art because Ethernet is a type of communication protocol used as the means of communicating between networked systems. (Lines 54-60 of Column 4).

40. Regarding claim 3, Forsman discloses a data processing system wherein an I/O controller includes an I2C controller. [Examiner notes IIC, I2C, and I²C are all the used to designate Interlock Interface Control] (Lines 55-62 of Column 2).

41. Regarding claim 11, Forsman discloses that the data processing system can have network adapter or modem support within the system. (Lines 38-42 of Column 2). Forsman does not disclose a system, which explicitly uses Ethernet. However, Dziadosz discloses a data processing I/O system that uses the Ethernet protocol as means of communication. It would have been obvious to one of ordinary skill in the art at the time of the invention to combine the I/O systems communications of Dziadosz and data processing system of Forsman. It is would have been obvious to one of ordinary skill to combine the art because Ethernet is a type of

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communication protocol used as the means of communicating between networked systems.

(Lines 54-60 of Column 4).

42. Regarding claim 12, Forsman discloses a data processing system wherein an I/O controller includes an I2C controller. [Examiner notes IIC, I2C, and I²C are all the used to designate Interlock Interface Control] (Lines 55-62 of Column 2).

Allowable Subject Matter

43. Claims 17, 28, 32-34, 39, and 43-45 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

- Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Tim Bonura**.
 - The examiner can normally be reached on **Mon-Fri: 8:30-5:00**.
 - The examiner can currently be reached at: **703-305-7762**. On or after October 15, 2004 the examiner can be reached at: **571-272-3654**.
- If attempts to reach the examiner by telephone are unsuccessful, please contact the examiner's supervisor, **Rob Beausoliel**.
 - The supervisor can be reached on **703-305-9713**.
- The fax phone numbers for the organization where this application or proceeding is assigned are:

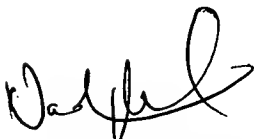
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- **703-872-9306 for all patent related correspondence by FAX.**
- Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov/>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).
- Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the **receptionist** whose telephone number is: **703-305-3900**.
- Responses should be mailed to:

- **Commissioner of Patents and Trademarks**

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PRIMARY EXAMINER

tmb

September 16, 2004

Tim Bonura
Examiner
Art Unit 2114